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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,947	11/21/2001	Shawni Daw	200135.404	2899

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EXAMINER

CARTER, AARON W

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,947

Applicant(s)

DAW, SHAWNI

Examiner

Aaron W Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/2002</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings filed on January 21, 2002 are objected to because of draftperson's remarks (see attached PTO-948). In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

Claim Objections

2. Claims 1 and 11 are objected to because of the following informalities:

As to claim 1, in line 13, the “,” should be replaced with a period “.”.

As to claim 11, in line 3, the phrase “thereon on plurality” appears to be grammatically incorrect.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 17 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 2 recites the limitation "Each data point" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claim 2 appears to be a dependent claim but is not written as such. Examiner will examine the claim as though it is dependent upon claim 1 until further clarification.

Claim 17 recites the limitation "tissue of interest indicator" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "analysis status indicator" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 19 appears to have been mistakenly made dependent on claim 17, when claim 18 would have been more appropriate. Examiner will treat the claim as though it is dependent on claim 18 until further clarification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7, 9-13, 15, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,987,345 to Engelmann et al. ("Engelmann").

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As to claim 1, Engelmann discloses a user interface for a medical image comprising:

A memory for storing a plurality of data sets, each data set corresponding to an image of a location within a medical body of interest (column 3, lines 2-3);

A plurality of data points within each image, each data point corresponding to a measured parameter collected from the medical body of interest (column 6, lines 60-65, wherein markers correspond to data points);

A visual display having the image thereon, the image being composed of a visual representation of the respective data points for that image (Fig. 6);

A color scale variation on the visual display of the image providing a first color scale of those data points in the image that have been analyzed and determined to have a common characteristic (column 8, lines 45-56, wherein a red or green button is used to indicate that data points in an image have been analyzed and determined to have a common characteristics); and

An image analysis indicator on the same visual display as the image, the image analysis indicator showing a color scale variation corresponding to the different characteristics of the data (column 8, lines 45-56, wherein the positive/negative indicator corresponds to the image analysis indicator).

As to claim 2, Engelmann discloses the user interface of claim 1, wherein each data point is composed of information from a plurality of data sets of different types (column 7, lines 49-57).

As to claim 3, Engelmann discloses a user interface for the visual display of an image from an object under study comprising:

A visual display terminal having thereon the image from the object under study (Fig. 3, element 31 and 32);

First markings on the image as presented on the visual display terminal indicating locations on image that corresponds to tissues of interest (column 6, lines 60-65);

Second markings on the visual display terminal at a location spaced from the image indicating that the image has first marking thereon (column 8, lines 45-56).

As to claim 4, Engelmann discloses the user interface according to claim 3, wherein the first markings indicate similar regions of material within the object itself that have been identified by a computer analysis of the data collected about the object (column 6, lines 55-65).

As to claim 5, Engelmann discloses the user interface according to claim 4, wherein the object is a medical body and similar regions correspond to tissues that have similar characteristics (column 3, lines 2-3 and column 6, lines 55-65).

As to claim 6, Engelmann discloses the user interface according to claim 5, wherein the tissue is a type of cancer (column 1, lines 19-30).

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As to claim 7, Engelmann discloses the user interface according to claim 3, wherein the second markings are at a selected location on the visual display terminal to attract the attention of a user (column 8, lines 45-56).

As to claim 9, Engelmann discloses the user interface according to claim 3, further including:

A plurality of images of the object under study displayed simultaneously on the visual display terminal (Fig. 16);

Second marking present on the visual display terminal associated with each of the plurality of images that have a tissue of interest thereon, indicating whether each respective image has a tissue of interest thereon (column 8, lines 45-56).

As to claim 10, Engelmann discloses the user interface according to claim 9 further including:

First markings on those images within the plurality of images that contain tissues of interest on the image (column 6, lines 60-65).

As to claim 11, Engelmann discloses a user interface for the visual display of an image from an object under study comprising:

a terminal having thereon a plurality of images of the object under study (column 3, lines 2-3);

Tissue of interest identified on at least one of the images under study (column 6, lines 55-65);

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A marking associated with each of the images indicating those images which contain a region that is similar to the tissue of interest, the marking being spaced from the tissue of interest within each respective image (column 8, lines 45-56).

As to claim 12, Engelmann discloses the user interface according to claim 11, wherein the marking associated with each image is spaced from the image (column 8, lines 47-49).

As to claim 13, Engelmann discloses the user interface according to claim 11, wherein the marking associated with each image is at an identical location relative to the image it is associated with for each of the respective images (column 8, lines 47-49).

As to claim 15, Engelmann discloses the user interface according to claim 11, further including:

A tissue of interest marking on the image indicating the location with the image itself that contains the tissue of interest (column 6, lines 55-65).

As to claim 17, Engelmann discloses the user interface according to claim 11, wherein the marking has a first form when the tissue of interest indicator is turned on and a second form when the tissue of interest indicator is off (column 8, lines 45-56).

As to claim 18, Engelmann discloses a method of indicating images within a set of images that contain a region of interest comprising:

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Locating in a first image a selected type of tissue within a region of interest (column 3, lines 8-20);

Performing a computer analysis on the image to locate within the image any tissue that is similar to the selected tissue within the region of interest (column 3, lines 8-20);

Performing a computer analysis of a plurality of images to locate within each of the images any tissue that is similar to the selected tissue (column 5 lines 1-12);

Placing an analysis status indicator associated with each image that contains tissue of interest (column 8, lines 45-56).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8, 14, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engelmann.

9. As to claim 8, Engelmann discloses the user interface according to claim 3.

Engelmann does not disclose expressly wherein the first and second markings are the same color as each other on the visual display terminal.

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At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the first and second markings disclosed by Engelmann the same color as opposed to using different shapes for the markings as disclosed in column 6, lines 60-65. Applicant has not disclosed that using different colors for the markings provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with different shapes because they provide the indication of different characteristic the same as applying different colors to different characteristic or tissues of interest.

Therefore, it would have been obvious to combine to one of ordinary skill in this art to modify Engelmann with to obtain the invention as specified in claim 8.

10. As to claim 14, Engelmann discloses the user interface according to claim 11, wherein each of the plurality of images is within window and the marking is at the upper right hand corner of a window that includes the image (column 8, lines 47-49).

Engelmann does not disclose expressly wherein the marking is at the upper left hand corner of a window.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to place the marking in the upper left hand corner of the window. Applicant has not disclosed that placing the marking in the upper left hand corner of the window provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the

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marking in the upper right hand corner of the window because they both indicate the presence of a tissue of interest at the top of the image window.

Therefore, it would have been obvious to combine to one of ordinary skill in this art to modify Engelmann with to obtain the invention as specified in claim 14.

As to claim 16, please refer to the rejection of claim 8 above.

As to claim 19, please refer to the rejection of claim 14 above.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,805,118 to Mishra et al. discloses marking a tissue of interest.

US Patent Publication 2002/0193676 to Bodicker et al. discloses marking a tissue of interest.

US Patent Publication 2002/0097902 to Roehrig et al. discloses marking a tissue of interest.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W Carter whose telephone number is (703) 306-4060. The examiner can normally be reached on 7am - 3:30 am (Mon. - Fri.).

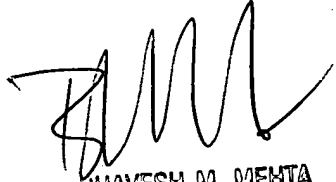
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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